

2021 Preliminary Technical Poster Program

Monday, November 15: E-Poster Session 1; 11:30am – 12:30pm

Title/Authors

Rapid Analysis of Wastewaters Following U.S. EPA 200.7, Andrea Palpini, PerkinElmer

Testing and Validation of Antacids for Class 1 and 2A Elemental Impurities Following ICH Q3D (R2) and USP <232>/<233>, Using ICP-MS, Brady Frill, PerkinElmer

Analysis of Metals in Disposable, Non-Medical Face Masks Using ICP-OES, Brady Frill, Ken Neubauer, PerkinElmer

Investigation into the Aging Mechanism of Bloodstains Post Deposition Using Steady-State Fluorescence Spectroscopy for Forensic Purposes, Alexis Weber, Anna Wojtowicz, Igor Lednev, University at Albany-SUNY

A Rapid Thermal Desorber for Process Analysis Using an Ion Mobility Spectrometer, Brian Musselman, IonSense, Hacene Boudries, Leidos

Determination of Pharmaceuticals in Water and Biofilm Samples from the Hudson River, Kate Good, Teeshavi Acosta, John Jay College-City University of New York

E-Waste Recycling and Disposal in Developing Countries: Environmental Risk Assessment Challenge, Abdel-Razak Kadry, University of Maryland, Babasaheb Sonawane, Georgetown University

Identification of Off-Odor Compounds in Paper Products Using Thin Film Solid Phase Microextraction (TF-SPME) and GC-MS/O, Nicole Kfoury, John Stuff, Jaqueline Whitecavage, GERSTEL, Inc.

Saturated Absorption Spectroscopy and Two-Photon Cavity Ring-Down Absorption Spectroscopy for Trace Gas Detection of Nitrous Oxide, Madeline Memovich, Kevin Lehmann, University of Virginia

Screening Counterfeit Pharmaceutical Drug Products Using LC/PDA/MS, Mark Wang, Brittany Handzo, Jeremy Peters, Scott Huffman, Ravi Kalyanaraman, Bristol Myers Squibb

Automation High-Throughput Experimentation for Acceleration of Formulation Development, Sharon Matamoros, Matthew Bahr, Amanda Dingley, Austin Philip, Kris Angamuthu, GlaxoSmithKline

MXene-Based Sensing Platform for Quantification of "Forever Chemicals," Alexis Alexander, Reem Khan, Silvana Andreescu, Clarkson University

Method Validation for the Detection of Per- and Polyfluoroalkyl Substances (PFAS) in Environmental Water Sources, Amanda Belunis, William LaCourse, University of Maryland

Validated Method for the Targeted and Untargeted Analysis of Oyster Tissue for Per- and Poly-Fluoroalkyl Compounds (PFASs) by UHPLC-MS/MS and UHPLC-QTOF Analysis, Grace Greene, Sarah Ayers, Anthony Provas, James Stuart, Christopher Perkins, University of Connecticut

Targeted Analysis of Mycotoxins and Pesticides in Cannabis Sativa (Hemp) Utilizing Liquid Extraction and UPLC-MS/MS, Anthony Provas, Sarah Ayers, Stephanie Kexel, Christopher Perkins, University of Connecticut

The Effect of Washing on the Transfer and Persistence of Fiber Evidence, Madison Carter, Brooke Kammrath, University of New Haven, John Reffner, John Jay College of Criminal Justice

Advances in Analytical Techniques: Unravelling Antibiotic-Metal Complexes in Wastewaters, Pratishtha Khurana, Rama Pulicharla, Satinder Brar, York University

Microplastics in Multi-Use Estuaries: Development of a Source - Receptor Monitoring Strategy, Christopher Perkins, Michael Willig, Anthony Provas, University of Connecticut

Critical Review and Screening of Laboratory Supplies for PFAS Analysis in Water Samples, Thi Do, Landon Wiest, Shun-Hsin Liang, Mike Chang, Restek Corporation

The Analysis of Phytohormones by LC-MS, Ravikumar Patel, Christina Robb, Lindsay Triplett, Connecticut Agricultural Experimental Station

2019 Preliminary Technical Poster Program

Monday, November 15: E-Poster Session 2; 12:30pm – 1:30pm

Title/Authors

Development of Stability Indicating RP-UHPLC Method for the Simultaneous Determination of Chlorocresol and Betamthasone Dipropionate in Topical Formulations Using Box-Behnken Design, Siva Krishna Muchakayala, Douglas Pharma US Inc., Naresh Kumar Katari, Gandhi Institute of Technology and Management, Thirupathi Dongala, Aurex Laboratories LLC, Vishnu Murthy Mariseti, ScieGen Pharmaceuticals Inc.

Analytical Quality by Design Based Method Development for the Analysis of Valsartan and Nitrosamines Impurities Using UPLC-MS, Fadi Alkhateeb, Paul Rainville, Waters Corp.

Core Analytical Quality-by-Design Tools Supporting Analytical Procedure Lifecycle Management Stages 1-3, Richard Verseput, S-Matrix Corporation

Evaluation of Solid Phase Extraction Media for Extraterrestrial In-Situ Sample Preparation of Liquid Samples, Jerome Ferrance, J2F Engineering

Compact Chromatographic Instrumentation for the Analysis of Drugs of Abuse, Sangeeta Kurre, Alexis Zimmer, Mita Ray, Leah Notarfrancesco, Keyur Patel, Samuel Foster, Kyle Morrow, James Grinias, Rowan University

The Development of Open-Source Instrument Modules For Capillary LC-MS, Deklin Parker, Samuel Foster, James Grinias, Rowan University

Separation of Derivatized Organic Acids by Supercritical Fluid Chromatography, Yih Ling Saw, Faith Wroniuk, John Boughton, Paula Arellano Vasquez, James Grinias, Rowan University

On-Line Monitoring of Chemical Reactions Using Compact Capillary Liquid Chromatography, Samuel Foster, James Grinias, Rowan University

Investigating Polycyclic Aromatic Hydrocarbons as Biosignatures in the Martian Subsurface Using GC-MS, Christine Ward, Ardith Bravenec, Timothy Ward, Millsaps College

Method Screening Technology and Teamwork: Overcoming Method Issues During a Time Crunch, Heather Neu, Lyudmila Khalatyan, Evan Bekos, Vera Leschinskaya, Bristol Myers Squibb

A Platform Analytical Method for Intact Polysorbates in Protein-Containing Biopharmaceutical Products via HPLC-CAD, Sina Mortazavi, Katie Carnes, Kaitie Grinias, Joshua Fuller, Michelle Ward, Lee Oliver, Justin Shearer, Timothy Brown, Michael Morris, GlaxoSmithKline

Optimization of the In-Gel Trypsin Digestion for Proteomics Applications, Mary Donnelly, Hannah Yorkey, Danielle Witham, Costel Darie, Clarkson University

Evaluation of Retention Behavior and Stability of a Novel Trifunctional Biphenyl Phase, Scott Silver, Pyvot, Norikazu Nagae, Tomoyasu Tsukamoto, Ryuji Koyama, Chromanik Technologies Inc.

Comparison of Quadrupole Versus Time of Flight Mass Spectrometry in Detecting Various Bacterial Lipid Classes, Frank Nichols, Anthony Provatas, University of Connecticut

Porous Graphitic Carbon – Making Sense of this Unique Material for HPLC, Clinton Corman, Cory Muraco, Michael Ye, MilliporeSigma

GC Method Translation in Adsorption Gas Chromatography (PLOT Columns), Cathy Hetrick, Katarina Oden, Chris English, Jaap de Zeeuw, Restek Corporation

Low Pressure Gas Chromatography (LPGC) - The Fast Way to Speed Up Your Multiresidue Pesticide Analysis for Foods!, Mike Zezzo, Jana R. Hepner, Jaap de Zeeuw, Kristi Sellers, Joseph Konschnik, Restek Corporation

Rapid Recognition of Beer Specimen Based on Multivariate Analysis of Non-volatile Fingerprint, Thi Do, Ryan Micklitsch, Tom Kane, German Gomez-Rios, Joseph Konschnik, Restek Corporation

Interrogation of Fluoropolymers for Non-Polymer PFAS - Analytical Procedures and Challenges, Jordyn Kramer, Michael Davis, Robert Buck, Lam Leung, The Chemours Company

Surface Characterization and Methane activation on SnOx/Cu2O/Cu(111) Inverse Oxide/Metal Catalysts, Rina Rosales, Jindong Kang, Erwei Huang, Yi Tian, Ivan Orozco, Rui Shi, Jose A. Rodriguez, Stony Brook University, Ning Rui, Mausumi Mahapatra, Sanjaya D. Senanayake, Ping Liu, Brookhaven National Lab

2021 Preliminary Technical Poster Program

Tuesday, November 17: E-Poster Session; 11:30am – 12:30pm STUDENT AWARDEES

Title/Authors

Adapting and Chemically Modifying Nanopore Sensors for Glycan Sensing And Sequencing, James Hagan, Brian Sheetz, Jason Dwyer, The University of Rhode Island

Spectroscopic Determination of Inorganic Phosphate in Eutrophic Water Using Cerium-Based Metal-Organic Framework, Mohamed Hassan, Silvana Andreescu, Clarkson University

Application of Guided-Ion-Beam Tandem Mass Spectrometry and Near IR Emission Spectroscopy in Reaction Dynamic Investigation of Radical Cations of 8-Oxo-2'-deoxyguanosine and Guanosine with Singlet O₂, May Myat Moe, Jianbo Liu, Queens College of the City University of NY

Developing Novel Infrared Matrix-Assisted Laser Desorption Electrospray Ionization Mass Spectrometry Imaging Methods for the Analysis of Underivatized Biomolecules, Crystal Pace, David Muddiman, North Carolina State University, Jared Simmons, Ryan Kelly, Brigham Young University, Peggi Angel, Richard Drake, Medical University of South Carolina

Protein-Mediated Microdroplet Henry Reaction, Qi Wang, Hao Chen, New Jersey Institute of Technology, Jia Li, Fudan University, Richard N. Zare, Stanford University

Boronitride Based Energy Harvesting Devices, Maximillian Card, Clarkson University

Application of Mammalian Peptide Substrate Reporters for Protein Kinase B to Cell Signaling in an Evolutionarily Distant Organism Dictyostelium discoideum, Mengqi Jonathan Fan, Michelle Kovarik, Trinity College

Breakdown of the Stokes-Einstein Equation in Reverse Micellar Solutions, Matthew Too, Markus Hoffmann, SUNY-Brockport

Tuesday, November 17: E-Poster Session 1; 11:30am – 12:30pm

Title/Authors

Remediation of Heavy Metals with Nanomaterials, Sriparna Dutta, Rakesh Kumar Sharma, University of Delhi

Structural and Electrochemical Heterogeneity Assessment of Ti₃C₂T_x MXene Materials by AFM-SECM, Qingquan Ma, MengQiang Zhao, Wen Zhang, John A. Reif, Jr., New Jersey Institute of Technology

Determining the Effects of Tetrathiomolybdate on the Copper Levels in Amyloid Aggregates of Cerebral Amyloid Angiopathy Using X-Ray Fluorescence Microscopy, Ashwin Ambi, Lisa Miller, Stony Brook University, Tiffany Victor, Brookhaven National Laboratory, Aleksandra Stanisavljevic3, William Van Nostrand, University of Rhode Island

Product Compliance and Brand Discrimination of Water-Based Personal Lubricants with a Handheld NIR Spectrometer, Matthew Eady, Chayanee Changpim, Morakot Sangworatham, David Jenkins, 1FHI 360

Comparing Color Measurement Tools for use in Art Conservation, Sarah Barack, Jessica Walthew, Cooper Hewitt Smithsonian Design Museum, Maia Curran, Columbia High School, Kate Wight Tyler, Natalya Swanson, Brooklyn Museum

Soil Mineral Analysis by Particle Correlated Raman Spectroscopy (PCRS): Optimized Dispersion and Double-Pass Raman Analysis, Gabrielle Messe, Savannah Brown, Hannah Garvin, Nicholas Gogola, Chase Notari, Virginia Maxwell, Brooke Kamrath, University of New Haven, John Reffner, Peter De Forest, John Jay College of Criminal Justice, Christopher Palenik, Microtrace LLC, Peter Harrington, Ohio University, Deborah Huck-Jones, Malvern Panalytical Ltd, Bridget O'Donnell, Andrew Whitley, HORIBA Scientific

Electrochemical Sensors for PFAS Detection Using MXenes, Alexis Alexander, Reem Khan, Silvana Andreescu, Clarkson University

Real-Time In-Line Monitoring Determination in a Fluid Bed Dryer: A Chemometric Near-Infrared (NIR) Application for High Rubber Graft (HRG) Acrylonitrile Butadiene Styrene (ABS) Resin, Yusuf Sulub, SABIC

Development of a Portable Sensor for the onsite Detection of Perfluoroalkyl Substances, Abd Ur Rehman, Silvana Andreescu, Clarkson University

Matrix Isolation Spectroscopy: The Exploration of Weakly-Bound Complex Formation in Space, Emily Hockey, Korina Vlahos, Leah G. Dodson, University of Maryland-College Park

Evaluation of Partial Least-Squares Regression with Multivariate Analytical Figures of Merit for Determination of 10 Pesticides in Milk, Farnoosh Koleini, Parvaneh Balsini, Hadi Parastar, East Carolina University

Flow Cytometric Analysis of Murine Pulmonary Macrophages with ACAT1 Inhibition, Emily Stevenson, Rutgers University

2021 Preliminary Technical Poster Program

Tuesday, November 17: E-Poster Session 2: 12:30pm – 1:30pm

Title/Authors

Magnetically Driven Precisely Engineered Iron Oxide Based Nanomaterials For Removal of Toxic Contaminants Present in Water Streams, Kanika Solanki, Rakesh K. Sharma, University of Delhi

Development of Immunosensing Platform for Detection of Serotonin: Monophasic Molybdenum Selenide-Reduced Graphene Oxide Nanocomposite Sheets, Chhaya Chaudhary, Suveen Kumar, Ramesh Chandra, University of Delhi

The Normal Phase and Reversed Phase Separations of \pm -Catechin on Daicel Chiral Columns, Weston J. Umstead, John J. Ferraro, William L. Watts Jr., Chiral Technologies

Low-Cost Platform to Assay Bacterial Biofilm Formation in Flow, Dylan Winkens, Tajrian Khan, Christopher Piccolo, Hyder Alikhan, Joshua Davis, Samuel Foster, Lark Perez, James Grinias, Rowan University

Impact of Metal Ions from Stainless Steel Brewing Equipment on the Quality of a Light Lager, Jesse Bischof, SilcoTek Corporation

Surface-Enhanced Raman Spectroscopy, a Sensitive and Label-Free Technique for Drug Discovery: Ligand and RNA Specific Binding, Lamyaa Almeahadi, Vibhav Valsangkar, Ken Halvorsen, Qiang Zhang, Jia Sheng, Igor Lednev, University at Albany

Novel MXene Based Cytochrome C Biosensor for Superoxide Detection, Tyler Bechard, Clarkson University

Method Transfer and Method Validation of Belatacept as Prophylaxis of Organ Transplant Rejection: PK and Immunogenicity Assay and Subsequent Supports, Xiaohui Xu, Bristol-Myers Squibb

Automated Sample Cleanup for the Analysis of Residual Pesticides in Food Using In-Line Sample Preparation (ILSP) and LC-MS/MS, Jamie York, Sharon Lupo, Connor Flannery, Restek Corporation

Exploring the Lipid Raft Hypothesis Using a Lipidomic Approach, Samuel Krug, Praveen Kumar, Ludovic Muller, Maureen Kane, University of Maryland

Culture and Identification of Airborne Bacteria Using Mass Spectrometry at Clarkson University, Yashveen Rai, Sean Harrison, Steve Dunckel, Costel Darie, Clarkson University

Investigate the Impact of a Non-Ionic Surfactant on Pesticide Persistence on Fresh Produce Surface During Baking Soda Washing Using Surface-Enhanced Raman Spectroscopy, Xinyi Du, Lili He, University of Massachusetts-Amherst

Mass Spectrometric Based Approach for Lysosomal Storage Diseases Diagnostic in Newborns, Bailee Underwood, Costel Darie, Clarkson University, Laura Ion, Cristina Dimitriu University of Medicine and Pharmacy-Iasi, Michael Przybylski, Steinbeis Centre for Biopolymer Analysis and Biomedical Mass Spectrometry

Analysis of the Lake Trout Heart and Blood Proteome Using Evolutionary Proteomics, Shelby Alwine, Emmalyn Dupree, Thomas Holsen, Costel Darie, Clarkson University, Bernard Crimmins, AEACS

An Assessment of Bisphenol Compounds in Beer Cans: Quantitative Approaches for Determining Variation Related to Brand and Lining, Michael W. Willig, Christopher R. Perkins, Anthony A. Provas, James D. Stuart, Sarah A. Ayers, Steven J. Presley, University of Connecticut

Overcoming the Challenges of Hand Sanitizer Analysis, Cathy Hetrick, Chris English, Restek Corporation, Tyler West, Bobby Polak, Michael Ratkovich, Brian Sloat, Mike Sandoval, Santé Laboratories

Rapid Detection System of Escherichia Coli (E. coli) Using Printed Paper-Based Assay, Aqsa Khan, Jafar Sannie, Silvana Andreescu, Clarkson University

PFAS Concentration in Food Containers and their Effect on Food and Diet: A Review of Findings, Noah Liquori-Bills, James Stuart, Anthony Provas, The University of Connecticut

Unique Absorbance and Fluorescence Fingerprints of Dietary Supplements Revealed by A-TEEM Spectroscopy, Ashley Pokhaj, Gene Hall, Rutgers University

MXene-ceria Nano-Hybrid: Synthesis, Characterization, and Application in Biosensor Development, Reem Khan, Kadija Legagneur, Silvana Andreescu, Clarkson University